

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/588, 431
Source: JFWP
Date Processed by STIC: 08/14/2006

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 08/14/2006

PATENT APPLICATION: US/10/588,431

TIME: 13:49:39

Input Set : A:\05-222-PCT SeqList REV.txt

Output Set: N:\CRF4\08142006\J588431.raw

3 <110> APPLICANT: Arizona Board of Regents, on Behalf of Arizona State
 4 University
 6 <120> TITLE OF INVENTION: Rational Design and Engineering of Proteins and
 Peptides for
 7 Immunomodulation
 9 <130> FILE REFERENCE: 05-222-PCT; M4-043
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/588,431
 C--> 12 <141> CURRENT FILING DATE: 2006-08-04
 14 <160> NUMBER OF SEQ ID NOS: 7
 16 <170> SOFTWARE: PatentIn version 3.3
 18 <210> SEQ ID NO: 1
 19 <211> LENGTH: 69
 20 <212> TYPE: PRT
 21 <213> ORGANISM: Artificial
 23 <220> FEATURE:
 24 <223> OTHER INFORMATION: Synthetic; GC-MAF
 26 <400> SEQUENCE: 1
 28 Gly Ser Arg Val Lys Ala Leu Glu Glu Lys Val Lys Ala Leu Glu Glu
 29 1 5 10 15
 32 Lys Val Lys Ala Leu Gly Asn Ala Thr Pro Thr Glu Leu Ala Lys Lys
 33 20 25 30
 36 Lys Trp Glu Glu Leu Lys Lys Lys Ile Glu Glu Leu Gly Asn Ala Thr
 37 35 40 45
 40 Pro Thr Glu Val Lys Lys Val Glu Glu Glu Val Lys Lys Leu Glu Glu
 41 50 55 60
 44 Glu Ile Lys Lys Leu
 45 65
 48 <210> SEQ ID NO: 2
 49 <211> LENGTH: 69
 50 <212> TYPE: PRT
 51 <213> ORGANISM: Artificial
 53 <220> FEATURE:
 54 <223> OTHER INFORMATION: Synthetic; GC-MAF
 56 <400> SEQUENCE: 2
 58 Gly Ser Arg Val Lys Ala Leu Glu Glu Lys Val Lys Ala Leu Glu Glu
 59 1 5 10 15
 62 Lys Val Lys Ala Leu Gly Gly Gly Gly Arg Ile Glu Glu Leu Lys Lys
 63 20 25 30
 66 Lys Trp Glu Glu Leu Lys Lys Lys Ile Glu Glu Leu Gly Asn Ala Thr
 67 35 40 45
 70 Pro Thr Glu Val Lys Lys Val Glu Glu Glu Val Lys Lys Leu Glu Glu
 71 50 55 60
 74 Glu Ile Lys Lys Leu
 75 65

RAW SEQUENCE LISTING

DATE: 08/14/2006

PATENT APPLICATION: US/10/588,431

TIME: 13:49:39

Input Set : A:\05-222-PCT SeqList REV.txt

Output Set: N:\CRF4\08142006\J588431.raw

```

78 <210> SEQ ID NO: 3
79 <211> LENGTH: 67
80 <212> TYPE: PRT
81 <213> ORGANISM: Artificial
83 <220> FEATURE:
84 <223> OTHER INFORMATION: Synthetic; GC-MAF
86 <400> SEQUENCE: 3
88 Gly Ser Arg Val Lys Ala Leu Glu Glu Lys Val Lys Ala Leu Glu Glu
89 1          5          10          15
92 Lys Val Lys Ala Leu Gly Asn Ala Thr Pro Thr Glu Leu Ala Lys Lys
93          20          25          30
96 Lys Trp Glu Glu Leu Lys Lys Lys Ile Glu Glu Leu Gly Gly Gly Gly
97          35          40          45
100 Glu Val Lys Lys Val Glu Glu Glu Val Lys Lys Leu Glu Glu Glu Ile
101          50          55          60
104 Lys Lys Leu
105 65
108 <210> SEQ ID NO: 4
109 <211> LENGTH: 10
110 <212> TYPE: PRT
111 <213> ORGANISM: Artificial
113 <220> FEATURE:
114 <223> OTHER INFORMATION: Synthetic; GC-MAF
116 <400> SEQUENCE: 4
118 Gly Asn Ala Thr Pro Thr Glu Leu Ala Lys
119 1          5          10
122 <210> SEQ ID NO: 5
123 <211> LENGTH: 10
124 <212> TYPE: PRT
125 <213> ORGANISM: Artificial
127 <220> FEATURE:
128 <223> OTHER INFORMATION: Synthetic; GC-MAF
130 <400> SEQUENCE: 5
132 Gly Asn Ala Thr Pro Thr Glu Val Lys Lys
133 1          5          10
136 <210> SEQ ID NO: 6
137 <211> LENGTH: 10
138 <212> TYPE: PRT
139 <213> ORGANISM: Artificial
141 <220> FEATURE:
142 <223> OTHER INFORMATION: Synthetic
144 <220> FEATURE:
145 <221> NAME/KEY: MISC_FEATURE
146 <222> LOCATION: (1)..(1)
147 <223> OTHER INFORMATION: X stands for G, P, A, N, or S, (or is absent).
149 <220> FEATURE:
150 <221> NAME/KEY: MISC_FEATURE
151 <222> LOCATION: (2)..(2)
152 <223> OTHER INFORMATION: X stands for N, D, E, or G (or is absent).

```

RAW SEQUENCE LISTING

DATE: 08/14/2006

PATENT APPLICATION: US/10/588,431

TIME: 13:49:39

Input Set : A:\05-222-PCT SeqList REV.txt

Output Set: N:\CRF4\08142006\J588431.raw

```

154 <220> FEATURE:
155 <221> NAME/KEY: MISC_FEATURE
156 <222> LOCATION: (3)..(3)
157 <223> OTHER INFORMATION: X stands for A, G, L, V, or F (or is absent).
159 <220> FEATURE:
160 <221> NAME/KEY: MISC_FEATURE
161 <222> LOCATION: (4)..(4)
162 <223> OTHER INFORMATION: X stands for T, N, S, K, E, Q, or D (or is
absent).
164 <220> FEATURE:
165 <221> NAME/KEY: MISC_FEATURE
166 <222> LOCATION: (5)..(5)
167 <223> OTHER INFORMATION: X stands for P or G (or is absent).
169 <220> FEATURE:
170 <221> NAME/KEY: MISC_FEATURE
171 <222> LOCATION: (6)..(6)
172 <223> OTHER INFORMATION: X stands for T, S, K, E, D, N, or Q (or is
absent).
174 <220> FEATURE:
175 <221> NAME/KEY: MISC_FEATURE
176 <222> LOCATION: (7)..(7)
177 <223> OTHER INFORMATION: X stands for E, N, Q, D, K, or R (or is absent).
179 <220> FEATURE:
180 <221> NAME/KEY: MISC_FEATURE
181 <222> LOCATION: (8)..(8)
182 <223> OTHER INFORMATION: X stands for L, A, V, I, F, W, or Y (or is
absent).
184 <220> FEATURE:
185 <221> NAME/KEY: MISC_FEATURE
186 <222> LOCATION: (9)..(9)
187 <223> OTHER INFORMATION: X stands for A, L, V, I, F, W, Q, or N (or is
absent).
189 <220> FEATURE:
190 <221> NAME/KEY: MISC_FEATURE
191 <222> LOCATION: (10)..(10)
192 <223> OTHER INFORMATION: X stands for K, R, D, E, N, or Q (or is absent).
194 <400> SEQUENCE: 6
W--> 196 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
197 1 5 10
200 <210> SEQ ID NO: 7
201 <211> LENGTH: 10
202 <212> TYPE: PRT
203 <213> ORGANISM: Artificial
205 <220> FEATURE:
206 <223> OTHER INFORMATION: Synthetic, Loop 2 Sequences
209 <220> FEATURE:
210 <221> NAME/KEY: MISC_FEATURE
211 <222> LOCATION: (1)..(1)
212 <223> OTHER INFORMATION: X stands for G, P, A, N, or S (or is absent).
214 <220> FEATURE:
215 <221> NAME/KEY: MISC_FEATURE
216 <222> LOCATION: (2)..(2)
217 <223> OTHER INFORMATION: X stands for N, E, D, or G (or is absent).

```

RAW SEQUENCE LISTING

DATE: 08/14/2006

PATENT APPLICATION: US/10/588,431

TIME: 13:49:39

Input Set : A:\05-222-PCT SeqList REV.txt

Output Set: N:\CRF4\08142006\J588431.raw

```

219 <220> FEATURE:
220 <221> NAME/KEY: MISC_FEATURE
221 <222> LOCATION: (3)..(3)
222 <223> OTHER INFORMATION: X stands for A, G, L, V, or F (or is absent).
224 <220> FEATURE:
225 <221> NAME/KEY: MISC_FEATURE
226 <222> LOCATION: (4)..(4)
227 <223> OTHER INFORMATION: X stands for T, N, S, K, E, D, or Q (or is
absent).
229 <220> FEATURE:
230 <221> NAME/KEY: MISC_FEATURE
231 <222> LOCATION: (5)..(5)
232 <223> OTHER INFORMATION: X stands for P or G (or is absent).
234 <220> FEATURE:
235 <221> NAME/KEY: MISC_FEATURE
236 <222> LOCATION: (6)..(6)
237 <223> OTHER INFORMATION: X stands for T, S, K, E, N, D, or Q (or is
absent).
239 <220> FEATURE:
240 <221> NAME/KEY: MISC_FEATURE
241 <222> LOCATION: (7)..(7)
242 <223> OTHER INFORMATION: X stands for E, N, Q, D, K, or R (or is absent).
244 <220> FEATURE:
245 <221> NAME/KEY: MISC_FEATURE
246 <222> LOCATION: (8)..(8)
247 <223> OTHER INFORMATION: X stands for V, A, L, I, F, W, or Y (or is
absent).
249 <220> FEATURE:
250 <221> NAME/KEY: MISC_FEATURE
251 <222> LOCATION: (9)..(9)
252 <223> OTHER INFORMATION: X stands for K, R, D, E, N, Q, or A (or is
absent).
254 <220> FEATURE:
255 <221> NAME/KEY: MISC_FEATURE
256 <222> LOCATION: (10)..(10)
257 <223> OTHER INFORMATION: X stands for K, R, D, E, N, or Q (or is absent).
259 <400> SEQUENCE: 7
W--> 261 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      262 1          5          10

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/588,431

DATE: 08/14/2006
TIME: 13:49:40

Input Set : A:\05-222-PCT SeqList REV.txt
Output Set: N:\CRF4\08142006\J588431.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220>

to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; Xaa Pos. 1,2,3,4,5,6,7,8,9,10

Seq#:7; Xaa Pos. 1,2,3,4,5,6,7,8,9,10

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/588,431

DATE: 08/14/2006

TIME: 13:49:40

Input Set : A:\05-222-PCT SeqList REV.txt

Output Set: N:\CRF4\08142006\J588431.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0

L:261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0